CLAIMS

What is claimed:

1   1.   A method for collecting temperature data in a facility wherein the facility

2   includes a plurality of systems comprising:

3   coupling a plurality of sensors to at least one of the systems;

4   connecting each of the plurality of sensors to a central system; and

5   utilizing the central system to collect temperature data from each of the plurality

6   of sensors.

1   2.   The method of claim 1 wherein the facility comprises a data center and each of

2   the plurality of systems comprises a rack of computer systems.

1   3.   The method of claim 1 wherein coupling a plurality of sensors to at least one of

2   the systems further comprises:

3   connecting each of the plurality of sensors to the at least one of the systems via a

4   flexible stalk.

1   4.   The method of claim 1 wherein connecting each of the plurality of sensors to a

2   central system further comprises:

3   utilizing an electro-mechanical connector to connect each of the plurality of

4   sensors to the central system.

1   5.   The method of claim 1 wherein utilizing the central system to collect temperature

2   data from each of the plurality of sensors further comprises:

3   periodically querying the plurality of sensors to collect temperature data related

4   to the at least one system; and

5   creating an ambient temperature profile of the facility based on the temperature

6   data.

1   6.   The method of claim 1 wherein the plurality of sensors comprises 8 sensors.

1   7.   The method of claim 4 wherein the electro-mechanical connector comprises a

2   connector board.

1   8.   The method of claim 5 wherein the central system includes an embedded control

2   and the embedded controller is utilized to periodically query the plurality of sensors and

3   create an ambient temperature profile.

1   9.   The method of claim 7 wherein the connector board includes at least one RJ-11 type

2   connector.

1   10.   The method of claim 8 wherein the ambient temperature profile comprises a 3-

2   dimensional matrix view.

1   11.   A system for collecting temperature data in a data center wherein the data center

2   includes a plurality of racks of systems comprising:

3   at least one plurality of sensors coupled to the at least one of the rack of systems;

4   means for connecting the at least one plurality of sensors to a central system; and

5   means for utilizing the central system to collect temperature data from the at least

6   one plurality of sensors.

1   12.   The system of claim 11 wherein each of the plurality of sensor is coupled to the

2   at least one of the rack of systems via a flexible stalk.

1   13.   The system of claim 11 wherein the means for connecting the at least one

2   plurality of sensors to a central system comprises an electro-mechanical connector.

1   14.   The system of claim 11 wherein the plurality of sensors comprises 8 sensors.

1   15.   The system of claim 13 wherein the electro-mechanical connector comprises a

2   connector board.

1   16.   The system of claim 15 wherein the connector board includes at least one RJ-11

2   type connector.

1   17.   The system of claim 16 wherein the means for utilizing the central system to

2   collect temperature data from the at least one plurality of sensors further comprises:

3   means for periodically querying the plurality of sensors to collect temperature

4   data related to the at least one rack of systems; and

5   means for creating an ambient temperature profile of the data center based on the

6   temperature data.

1   18.   A data center comprising:

2   at least one rack of systems;

3   at least one plurality of sensors coupled to the at least one rack of systems;

4   at least one electro-mechanical connector coupled to the at least one plurality of

5   sensors; and

6   a central computer system coupled to the at least one electro-mechanical

7   connector for collecting temperature data related to the at least one rack of systems.

1   19.   The data center of claim 18 wherein each of the plurality of sensor is coupled to

2   the at least one of the rack of systems via a flexible stalk.

1   20.   The data center of claim 18 wherein the at least one electro-mechanical connector

2   comprises a connector board.

1   21.   The data center of claim 18 wherein the plurality of sensors comprises 8 sensors.

1   22.   The data center of claim 18 wherein the central computer system includes logic

2   for:

3   periodically querying the plurality of sensors to collect temperature data related

4   to the at least one rack of systems; and

5   creating a temperature profile of the data center based on the temperature data.

1   23.   The data center of claim 20 wherein the connector board includes at least one RJ-

2   11 type connector.

1   24.   A computer program product for collecting temperature data in a data center

2   wherein the data center includes a plurality of racks of systems, the computer program

3   product comprising a computer usable medium having computer readable program means

4   for causing a computer to perform the steps of:

5   receiving data from a plurality of temperature sensors coupled to at least one of

6   the plurality of racks of systems; and

7   creating a temperature profile of the data center based on the temperature data.

1   25.   The computer program product of claim 24 wherein receiving data from a

2   plurality of temperature sensors coupled to at least one of the plurality of racks of

3   computer systems further comprises means for causing a computer to perform the step

4   of:

5   querying of each of the sensors in the data center;

6   providing an initiation command;

7   reading the measured temperature of each of the sensors; and

8   generating a temperature profile of the data center based on the temperature

9   readings.

1   26.   The computer program product of claim 25 wherein the temperature profile

2   includes a variety of profiles based on varying locations of the sensors.

1   27.   A temperature collection module for collecting temperature data in a data center

2   wherein the data center includes a plurality of racks of systems comprising.

3   a first set of interface electronics for interfacing with a plurality of sensors

4   coupled to at least one of the plurality of racks of systems;

5   temperature collection logic coupled to the first set of interface electronics for

6   collecting temperature data from the plurality of racks of systems; and

7   a second set of interface electronics coupled the temperature collection logic for

8   interfacing with a central computer system.

1   28.   The module of claim 27 wherein the temperature collection logic further

2   comprises logic for:

3   querying of each of the sensors in the data center;

4   providing an initiation command;

5   reading the measured temperature of each of the sensors; and

6   generating a temperature profile of the data center based on the temperature

7   readings.

1   29.   The module of claim 28 wherein the temperature profile includes a variety of

2   profiles based on varying locations of the sensors.